

The Indian Institute of Chemical
Engineers (IChE) has presented
its inaugural Diamond Award to
L. K. Doraiswamy, Anson Marston

Two AIChE members are showing middle school students how to get in gear for a greener future.

John Weidner and Edward Gatzke — chemical engineering professors at the Univ. of South Carolina (USC) — are among the creators of the FIRST LEGO League's 2007 "Power Puzzle" Challenge. The challenge, part of an annual technology competition sponsored by the not-for-profit organization FIRST (For Inspiration and Recognition of Science and Technology), introduces tens of thousands of young people to concepts in scientific thinking and real world problem-solving.

Founded by inventor Dean Kamen, FIRST's mission is to inspire students' interest and participation in science and technology. Using LEGO Mindstorms technologies and LEGO play materials, children aged 9–14 work alongside adult mentors to design, build and program robots to perform intricate tasks in an arena competition. More than 10,000 teams from 38 countries are involved in the Power Puzzle, which this year draws attention to energy management and conservation.

Power Puzzle challenges are underway at more than 300 qualifying events. These culminate at the FIRST LEGO League World Festival and Championship, Apr. 17–19, 2008, in Atlanta's Georgia Dome. Eighty-four teams from 27 countries will compete.

The creation of the Power Puzzle called for the expertise of engineers like Weidner and Gatzke — who not only had the necessary technical knowledge, but had also been long-time participants in LEGO League programs.

Since FIRST LEGO League's

(FLL) 1998 inception, the South Carolina state tournament has been was one of the nation's largest. Engineers, college faculty and their students have been among the legion of volunteers needed to run the competitions.

In 2002, the South Carolina Dept. of Education asked USC's College of Engineering and Computing to take over the state FLL tournament. John Weidner, whose own children had been participating in the LEGO League, agreed to serve as coordinator of the 2003 "Mission to Mars" challenge. Weidner soon found himself hooked on the concept.

"It was extremely rewarding to watch 9–14-year-old kids handling real engineering issues of teamwork, time constraints,

and technical topics — gears, motors and structures," says Weidner. He coordinated the 2004 "No Limits" competition, which involved engineering solutions to accommodate people with disabilities, 2005's "Ocean Odyssey," which asked students to select a sea resource or human activity, and to trace its impact on the ocean's health, biodiversity and productivity, and 2006's "Nano Quest," where students used LEGO elements to visualize engineering tasks conducted on the micro-scale.

During this time, Weidner asked his USC colleague Ed Gatzke, who had been judging local FLL competitions, to act as his head referee. "I've had fun with LEGO toys since I was a small child. I currently have my children playing with LEGOs," says Gatzke.

Gatzke notes that the LEGO League's focus on robotics and construction may not seem like an obvious fit with chemical engineering, but it does relate to his own process control research. "The students typically run everything in open-loop, rarely using sensors," says Gatzke. "But at least they are getting exposure to technology in a fun and creative way."

When FIRST wanted to develop an

energy-themed challenge, John and Ed were a logical choice for the design team. “FIRST knew that we were passionate about the program,” says Weidner, “and when they heard that Ed and I perform research on fuel cells and hydrogen, they asked us to help design Puzzle Power. Our role was to provide the underlying techni-

The AIChE Sustainability Index (SI) (*CEP*, Nov. 2007, p. 13, and Jan. 2008, p. 20) assesses sustainability of companies in the chemical industry with respect to strategic commitment, environmental performance, safety performance, product stewardship, social responsibility, value-chain management, and innovation. In this issue, we examine strategic commitment to sustainability based on five criteria (not all are weighted equally):

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President's Message — Are We Communicating?

Kamlesh K. Bhatia, Research Fellow at DuPont Central Research and Development, and an active AIChE leader, retired from DuPont in December 2007 after more than 34 years of service.

Bhatia joined DuPont in April 1973 in the Industrial Chemicals Department and transferred into Research and Development in 1992. During his career, he made significant contributions to several businesses through improvement of existing processes and invention of new processes.

He is a long-time contributor to Institute life. He is involved in AIChE meeting programming, and is a founding member of the Institute's Process Development Div. He is also a member of the Wilmington Local Section, and has arranged corporate support for AIChE student programs. In 2005, he was elected as a Fellow of AIChE.

The holder of 33 U.S. patents, Bhatia has vo3.

Rebecca M. Hernandez of Princeton, NJ, a young RAIChE member, was killed on December 28, when the minivan she occupied with her husband and several friends was struck by an alleged drunk driver on New Jersey's Interstate 95. The couple and their friends were returning from a ski trip in the Pocono Mountains when the accident occurred.